Entering the Blogosphere: Blogs as Teaching and Learning Tools in Health Education

Jody Oomen-Early, PhD, MS, CHES\textsuperscript{1}; Sloane Burke, PhD\textsuperscript{2}

Author\textsuperscript{1} is affiliated with the Department of Health Studies at Texas Woman’s University. Author\textsuperscript{2} is affiliated with the Department of Health Education and Promotion at East Carolina State University. \textbf{Contact author:} Jody Oomen-Early, Texas Woman’s University, Department of Health Studies, Denton, TX, 84720; Phone: 972-786-2733; Fax: 940-898-2859; Email: joomen@mail.twu.edu

Submitted September 21, 2007; Revised and Accepted December 19, 2007

\textbf{Abstract}

Preparing health educators in today’s technology-driven society requires faculty to adopt new teaching strategies which motivate and engage the “Web 2.0 generation.” Blogs are popular online forums for both scholarly and non-scholarly communication. Currently, there are no published studies assessing the utility of blogs in health education. The purpose of this pilot study was to explore faculty and students’ perceptions of blogging as an effective teaching and learning tool within an online health education course. Students enrolled in both sections of an undergraduate online women’s health class (n = 52) were asked to complete an online survey regarding their perceptions of blogging as a teaching and learning tool. Overall, both instructors and students were satisfied with blogging and found it to be an effective teaching and learning strategy. Results of this pilot study showed that blogging can enhance peer interaction, allow for synthesis of course content, and help sustain student engagement in the online health education classroom. In the near future, blogs may serve as important channels for health education and advocacy beyond the virtual classroom.

\textbf{Key words:} Blogs, Health Education, E-learning, and Distance Learning
Introduction

Preparing health educators to work in a technology-driven world requires both students and faculty to understand and utilize current Web 2.0 learning tools. Technology is a powerful tool that health educators can use to advocate and communicate health information. The current migration of health education faculty and students to the virtual classroom requires instructors to adopt timely, creative, and innovative teaching strategies that aid in the delivery of online course content. These strategies help to ensure learner interaction and engagement, provide an enriching and challenging learning environment, and offer up-to-date learning applications. Creative courseroom techniques incorporating technology foster a more vibrant learning environment where students can develop their interpersonal and health communication skills. The use of technology, evaluation, and effective communication are essential skills for future health educators and should be integrated into entry-level courses which prepare students to perform the professional competencies of the field.

The use of web logs, (i.e. blogs), may serve as a powerful teaching tool as well as an important channel for health education. Previous research has shown that blogging, when integrated into curriculum, may increase student’s motivation, critical thinking, class interaction, and student’s course satisfaction. Most importantly, however, blogging may propel individuals to take social and political action outside of the virtual environment.

This article will discuss the potential benefits and challenges of blogging in health education and will report the results of a pilot study which implemented blogging in a virtual health education courseroom.

An Overview of Blogging

A web log, or “blog”, is a frequently (sometimes as often as hourly) updated online diary or personal chronological log of thoughts published on a Web page. Blogs are typically published by individuals, and their style is personal and informal. Anybody with an Internet connection can publish their own Web log.

Blogs provide individuals or communities an opportunity to voice their opinion or share their personal story. Blogs are very similar to a website in that they allow for self expression and may contain narrative comments, video, audio, photographs, sketchblogs, gaming, and links to other blogs or sites. Unlike a website, blogs are more fluid and changing as the online community or individual posts new information to share. Blogs can be “closed” (private), open only to certain people and in a certain platform), or “open,” where anyone on the Internet has access to them. Short, serial, and cumulative in nature, blogs are usually listed in a series of entries, in chronological order by date or thematically. Readers tend to read small amounts at a time, returning hours, days, or weeks later to read entries written since their last visit. Unlike the typical “discussion board” used in several course platforms such as Blackboard, blogs may not be as structured, or edited, and may include more tools for self-expression. For example, blogsites such as Blogger.com or Blogspot.com allow students to create their own blog page which includes video, audio, photos and images. Standard discussion boards found in many course platforms do not always include these tools.

Most blog sites allow viewers to leave subjective comments and use links generously, allowing readers to follow conversations between blogs by following links between entries on related topics. Readers may start at any point of a blog, seeing the most recent entry first, or arriving at an older post via a search engine or a link from another site, often another blog. Users of a blog site can be automatically notified when new content is posted by the use of RSS (Really Simple Syndication) that searches all sites the user specifies and notifies the user by email or on their own site.

Blogging has evolved from its origins as a medium for the online publication of personal diaries to a respected vehicle for editorials on specific topics including social, economic, and political-based issues. The quality, content, and ambition of blogs varies greatly, and they may have anywhere from a handful to tens of thousands of daily readers. Some blogs are explicitly or implicitly fictional, though the standard genre expectation, particularly for health- and education-based sites, is non-fiction.

In 2006, almost 70 million American adults were reading or hosting blogs. About 100,000 new blogs are created each day, and the Blogosphere (total blogs tracked) doubles every 5-7 months. These data reflect not only the growth in blogging but also its popularity as a vehicle to provide and share information.
courses during the fall of 2005 compared to 2.3 million in the fall of 2004, a 72% annual increase in distance education. A shift in attitude among online instructors from feeling intimidated by technology to focusing on empowerment and how it can be a useful medium for themselves and their learners is imperative. Fortunately, results from a recent survey of 677 professors from disciplines including business/economics and humanities/social services indicated that many faculty were beginning to reach this “comfort level,” with respondents expressing greater interest in online social networks, blogs, and pod casting.

Blogs are simple to create, implement, and use. They provide a platform for quick online collaboration through the rapid sharing of resources, knowledge, and links to information, as well as critical reflection and the debate of ideas. Teachers can respond to learners at a faster rate than through Discussion Boards or other asynchronous online methods. Some examples of blog usage include question blogs, topic discussions, study groups, journal entries, expert contributors, and sharing of research.

As shown in previous research, blogs as an online teaching strategy help to improve writing, allow learners a “voice” to reflect on content, and provide a vehicle for greater self-expression and creativity by engaging learners to think critically about what they are reading or discussing. The Constructivist nature of blogging may help increase a learner’s research, evaluation, and technology practices, which are critical skill sets for health education professionals. This, coupled with the collaborative filtering emerging on the internet, makes the concept of student-generated knowledge achievable. Another important aspect of blogs is the opportunity it provides learners to process the information in an environment that is relative to their Web 2.0 Generation.

Technology-based learning has produced a number of theories, including situated cognition, anchored instruction, and the community model which illustrates the important of technology and its impact on social interaction and effective learning. Some researchers have shown that participation in virtual communities can lead to more involvement (socially and politically) in face-to-face communities. Blogs enhance online communities and by implementing strategies such as collaborative filtering and recommending/referencing may provide instructors new ways to evaluate and critique student-created knowledge.

Today’s online learners seek greater control of their learning experience, including when, how, and where they obtain information, placing greater pressure on distance educators to provide up-to-date and innovative learning methods. Blogs offer instructors and learners a low-cost and simple option for instruction. Consistent with online learning, blogs provide both learners and instructors a high level of autonomy, while offering a new opportunity for peer dialogue and interaction. As with both traditional in-class instruction and online learning, students often learn as much from each other as they do from instructors or textbooks, and blogs provide a unique vehicle for peer sharing of ideas and content.

As recent research has shown, blogging may help college learners develop writing and analytical skills. Through the use of blogs learners are able to define their positions in the context of their peers’ writings in addition to their own. Further, blogs provide instructors with an opportunity to present a more defined, directed topic of interest within the course content, versus learners trying to filter out an array of online information from a more broad, general topic.

Krause cautioned that when using blogs in the online higher education environment, instructors must ensure that learners are clear on expectations. Discussion can be structured as more ambiguous in nature, allowing for learners to explore and filter relative material and provide a variety of additional materials and resources to the discussion. Krause found a large variation in post lengths, learner participation, peer responses, and relevant material posted in his online graduate course when attempting to initiate a more ambiguous topic and guidelines. Hernández-Ramos contended that, when learners are presented with an ambiguous topic of reflection, it challenges them to excel. Krause further shared that the use of blogs is more effective for journal type assignments, given the nature of their subjective format.

Martindale reported that blogging in online courses provided more permanence over Discussion Boards, especially when using course management systems such as Blackboard or Web CT. Through the use of an external blogging site, learners were encouraged to continue their online dialogue after the course ended. Although this post-course use of the external site did not occur, some learners did go on to
create their own blog sites. The authors contend that knowing one’s audience and tracking the reading of peer blogs is critical for success. Wiley\(^{9(56)}\) shared a more positive experience with learners more engaged than in previous online courses and providing more lengthy postings, supplemental material and links to the blog, and enjoying the opportunity to receive comments from professionals in their field.\(^9\) Halavais and Hernández\(^{2(1-5)}\) reported that blogging offers learners that normally do not feel comfortable speaking in a traditional in-class setting to feel more comfortable voicing their opinions and thoughts, which could provide online educators a more accurate assessment of a learner’s performance. They also stated that another important reason for the use of blogging is to expose learners to a tool they may be using as educators in the future.

Currently, there is a paucity of empirical studies investigating the use of blogs in health education. A recent search of journal articles using the key terms “blog” and “blogging” as well as “health education” and “women’s health” yielded no results when searching the research databases EBSCO Host, Academic Search Premier, the Cumulative Index of Nursing, and Allied Health, Medline, and ERIC. Furthermore, the terms “education” and “blog” or “blogging” yielded limited results of five articles. Clearly, there is a need to investigate the effectiveness of blogging and its perceived utility as a teaching and learning tool as well as a strategy for communicating health information.

**Purpose of Study**

The purpose of this pilot study was to explore faculty and students’ perceptions of blogging as an effective teaching and learning tool within the online health education classroom. The researchers wanted to measure if blogging increased students’ interaction, engagement, and feelings of connectedness with peers in the online course room. In addition, the researchers were interested assessing student and faculty perceptions of the usability of the blogging platform as well as their overall satisfaction with blogging as a learning and teaching tool. While the small sample size in this pilot study will not allow for generalizability of the results, the findings from this research could provide an initial assessment of students’ impressions of blogging as a teaching strategy in health education. This pilot could also serve as a springboard for a follow-up study where blogging is implemented in multiple online health education courses.

**Methods**

**Procedures**

The researchers chose to pilot the use of blogs in two sections of an undergraduate online women’s health course in Spring 2007 (N = 52). The women’s health course was part of a SABPAC-approved health education undergraduate program curriculum at a mid-size Southern university primarily for women. Students enrolled in both sections of the women’s health course were asked to create “blogspots” using Blogger.com, a free blogging web tool, since the university’s online course platform did not include blogging capabilities. A discussion “thread” was created in the Blackboard course room to “house” all of the students’ hyperlinked urls to their personal blogspots. The instructors of the course facilitated two conference calls using a web-conferencing service the first week of class to guide students in the creation of their blogspots, since both sections of the course were online. Written detailed instructions on how to create a “blogspot” were also provided to students within the online course website.

The women’s health blogs were used in addition to the “traditional” online Blackboard discussion board assignments; however, the intent of the weekly blogs were to allow for more self expression, individualism, synthesis, and “personalization” of the weekly course material. The blog topics presented by the instructors each week were informal and allowed students to use the subjective “I” voice unlike the discussion board assignments which were offered intermittently throughout the course and required supporting documentation and formal tone.

Although blogging was required each week, only 12 blogs were counted toward the students’ overall grade in the 15-week course to allow for some flexibility. Each week, a variety of blog topics were presented in the online learning module and students were to choose one that appealed to them and respond. The blog topic was written to allow for personalization, but it also drew upon concepts presented in the learning module. In addition to responding to the blog each week, the students were to read at least two other students’ blogs and leave comments on the peer’s Blogger.com blogspot.

An example of a blog topic is presented in Figure 1.

At the end of the semester, students enrolled in both sections of the online women’s health class (n = 52) were asked to complete an online survey regarding their perceptions of blogging as a teaching and learning tool. The 7-item online survey was
Results

A total of 26 out of the 52 students completed the survey (50%). Overall, both instructors and students were satisfied with blogging and found it to be an effective teaching and learning tool. Ninety-two percent of the students completing the survey (n = 24) felt that blogging was a useful strategy to increase peer interaction and 84% (n = 22) would recommend the use of blogs in future semesters of the course. Seventy-seven percent (n = 20) felt that Blogger.com was easy to use. This was a surprising finding because of the events that occurred the second week of the semester. The Blogger.com site had been taken over by Google.com and as a result, the blogspots the students had created were erased. Students had to create new accounts and new blogspots. Despite these technical difficulties, it appeared that the majority of students still found Blogger.com to be user-friendly.

Regarding student engagement, 85% (n = 22) agreed or strongly agreed that blogging helped them stay engaged in the course content. The students’ qualitative comments corroborated these findings. Table 1 depicts the frequency of responses to each survey item. Table 2 reflects common themes that emerged from the open-ended survey item (Q7), which was “Please share additional thoughts on using blogs as a teaching and learning tool in online health education courses.”

To quantitatively assess peer interaction, the number of student comments posted on blogspots within the two sections of online women’s health using blogs were compared to two sections of the same course from the previous semester which only used the discussion board function. Per curriculum requirements, students in all sections were instructed to leave at least two comments to their peers’ posts each week. Overall, the total number of student comments left was greater for the sections using blogs than for the sections using only the Blackboard discussion board function. As one instructor noted, “Within the first four weeks, I noticed that the peer interaction (based on previous semesters) had more than doubled.”

Using the archived courses mentioned above, it was determined that the mean number of student comments left per week in the courses only using discussion board was 1.8 compared to 4.2 in the sections using blogs. The primary reason for this could be due to the personalization and creative expression of blogging platforms such as Blogger.com vs. the traditional Blackboard discussion board which lacks these capabilities. Platforms such as Blogger.com, Blogspot, or LiveJournal.com allow students to post audio, video, hyperlinks, and images in addition to standard text. Students can customize and format their own page or “blogspot.” This personalization is a key characteristic of social networking platforms such as Myspace or Facebook which include Web 2.0 tools. Online course management systems such as Blackboard are just beginning to integrate this technology, but it should be noted that the Blackboard version used in this study did not include a blogging feature. More research is needed to explore the difference in social interaction between platforms which integrate Web 2.0 tools vs. those online courserooms which lack these features.

Instructor Perceptions

The two instructors who facilitated the online women’s health courses were asked to provide their informal insight into the effectiveness of blogging as a teaching and learning tool in health education as well as offer suggestions for faculty who choose to use blogs as a teaching strategy. Instructor comments were as follows:

- I felt that the blogs helped me get to know my online students
- I knew what was going on in my students’ lives which doesn’t always happen in face-to-face teaching
- I think the blogs increased social support among the students in the online courseroom
Example: When we covered the topic of cancer, a student posted pictures of her with her mother, who was undergoing chemotherapy for lung cancer. She found it timely to write about the experience, and other students shared encouraging thoughts and experiences with her.

- Blogging can be academic. Even when provided with two or three other options, many students chose to respond to the peer-reviewed journal article I posted in the learning module each week. They actually discussed in their blogs how the article may have supported or differed from their chapter readings and applied it to their own lived experiences. The blog strategy seemed to “sneak in” critical thinking.

The instructors also offered suggestions for incorporating blogs into the online health education courseroom. These recommendations are outlined in Table 3.

Discussion

Results of this pilot study are limited to a small sample population from one Southern university and cannot be generalized to the greater population. It is assumed that participants answered openly and honestly to the instrument questions as the results could be submitted anonymously by way of an online survey. The instrument used was a self-developed survey since there are no valid and reliable instruments that currently exist specific to student and faculty perceptions of blogging. The instrument was reviewed by two experts in the field of E-learning for face-validity and was piloted among student volunteers in the women’s health course to critique wording and format prior to data collection.

Participation in taking the online survey may have been increased if the online survey had been available to the participants before the last two weeks of the semester (when students are most consumed with final projects and exams). While the small sample size in this pilot study will not allow for generalizability of the results, the findings from this research could provide an initial assessment of students’ impressions of blogging as a teaching strategy in health education. This pilot could also serve as a springboard for a follow-up study where blogging was implemented in multiple online health education courses. Blogging seems to augment peer interaction, allows for synthesis of course content, and helps sustain student engagement. As demonstrated by the popularity of sites such as Blogger.com, MySpace.com, and Facebook.com, social networking is valued among the “Web 2.0 Generation.” Online health education instructors can use blogging to relay course content and help enhance feelings of community and connectedness in their online courserooms. As reflected in the results from this study and others, blogs can foster critical thinking and nurture writing skills.

Challenges in Utilizing Blogs in Higher Education

Most of the information shared on blog sites is editorial, and therefore more subjective in nature. Students should be cautioned not to process the information provided by other students as “fact,” but to utilize the blog as a mechanism for discussion and reflection of the content or topic presented. Instructors should clearly state this in their syllabus as well as within their online course shell.

To illicit learner engagement and relevant content, learners may be required to write more often to ensure fresh information and regular readership of the blog site. Undergraduate learners may complain that blogging requires greater time effort and participation. This time consideration and requirement should be considered and clearly outlined by both instructional designers and course instructors in the development of curriculum.

When possible, cultural considerations should also be incorporated to ensure the blog site is appropriate for all audiences. A survey conducted by the Pew Internet and American Life Project (2006) indicated that 60% of bloggers are Caucasian, 11% are African American, 19% are English-speaking Hispanic, and 10% identify as some other ethnicity. By contrast, 74% of Internet users are Caucasian, 9% are African American, 11% are English-speaking Hispanic, and 6% identify as some other ethnicity.

Inactive or “broken” hyperlinks can be an issue in the rapidly changing online environment. It is recommended that instructors always cross-check any hyperlinks before the course material is presented and made available to students. It is good practice to accomplish this during the course design phase and, once again, verify the link’s status right before the material is presented. This ensures that the information shared or presented is “active” and in good working order on the blog sites.
Intellectual property is now more of an area of concern for higher education due to the online, technology-based, multimedia environment. External online media and resources can now be easily integrated with course content which places the “ownership” of the course and student materials in question. It is important for instructors and staff to consider any ethical and legal issues that may hinder the use of a blog site at their institution. It is recommended that administration develop a policy specifically for online intellectual property and student materials. The U.S. Copyright Office published a report in 1999 on distance education and copyright which provides fair practices for both the holders of copy written materials and distance education providers. Recommendations such as expanding the scope of allowed materials and rights to meet technological necessities were noted. Copyright issues should also be considered and university policies followed when instructors, staff, or schools publish learners’ work on public web spaces.

A final and very important challenge is plagiarism, which has recently become a considerable problem for educators in higher education, particularly in the online environment, where cutting and pasting of material from other sources is fast and convenient. Practices to control for learner plagiarism should be incorporated.

Conclusion

While more research is necessary, this pilot study showed that blogs may be a viable strategy used to prepare health education students to communicate health information, interact with their peers, and practice current technologies. Future research might explore the utility of blogs as tools for disseminating health information to tailored groups as well as investigate how blogs might serve as health education advocacy platforms within professional organizations such as AAHE and SOPHE. As previous research has shown, blogging in the virtual environment may lead students to feel more empowered and more inspired to find solutions for current social ills impacting their “real” communities.

References

1. Beldarrain Y. Distance education trends: Integrating new technologies to foster student interaction and collaboration. Distance Ed. 2006; 27: 139-153


Table 1. Frequencies of Student Responses and Perceptions of Blogging *

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<tr>
<th>Item #</th>
<th>Statement</th>
<th>Frequency of Responses</th>
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<tbody>
<tr>
<td>1</td>
<td>I find the blogging exercises a useful way to create interaction with my peers</td>
<td>23% (6) = Strongly agree; 69% (18) = Agree; 0% (0) = Neutral; 0% (0) = Moderately disagree; 8% (2) = Strongly disagree</td>
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<td>2</td>
<td>I would recommend using blogs the next time this course is taught</td>
<td>46% (12) = Strongly agree; 38% (10) = Agree; 0% (0) = Neutral; 8% (2) = Moderately disagree; 8% (2) = Strongly disagree</td>
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<td>3</td>
<td>I enjoy reading and leaving comments for my classmates on their blogspots</td>
<td>46% (12) = Strongly agree; 31% (8) = Agree; 0% (0) = Neutral; 12% (3) = Moderately disagree; 12% (3) = Strongly disagree</td>
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<td>4</td>
<td>I felt that the site Blogger.com was easy to use</td>
<td>42% (11) = Strongly agree; 35% (9) = Agree; 0% (0) = Neutral; 19% (5) = Moderately disagree; 4% (1) = Strongly disagree</td>
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<td>5</td>
<td>Blogging and reading blogs helped me feel more connected to my peers</td>
<td>46% (12) = Strongly agree; 38% (10) = Agree; 0% (0) = Neutral; 12% (3) = Moderately disagree; 4% (1) = Strongly disagree</td>
</tr>
<tr>
<td>6</td>
<td>Blogging kept me engaged in the course content</td>
<td>35% (9) = Strongly agree; 50% (13) = Agree; 0.04% (1) = Neutral; 0.08% (2) = Moderately disagree; 0.04% (1) = Strongly disagree</td>
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*n = 26
Table 2. Themes in Students’ Written Comments Regarding the Use of Blogs

**Participant A wrote...**
I think the blogs were a good way *for everyone to really get to know one another*. Usually our peer responses are only on each other's work and the blogs let it be a little more personal.

**Participant B stated...**
One of my favorite parts of this class was the blogs. *I love that we are able to discuss, and share our feelings toward what we were learning about.* The YouTube's were also one of my favorite assignments in this class. I have really enjoyed this class and use of this technology.

**Participant C added:**
I have enjoyed reading my peers’ blog posts and *have learned something new from each of them. I find these to be more personal than the standard discussion board. It allows us to get to know one another and feel more connected as a class.*

**Participant D posted:**
I truly enjoyed the *interaction* and everything that the instructors tried to do in order to keep the course topics and communication to such a high level. *These factors can sometimes be rare for an Internet course and we were lucky to have instructors that care about their online interaction just as much as their classroom interaction*

**Participant E explained:**
I liked how *I could relate personal stories to a few of the topics*, especially when it came to knowing people with eating disorders. I felt that by blogging my story of how I dealt with friends with eating disorders, *I may have helped out others. Being able to post blogs gave me a sense of fulfillment that maybe I could help someone else out.* The semester has come to an end though, and *I enjoyed all of the time I got to spend online in this class. I also enjoyed reading stories and thoughts from other class members blogs!*
Table 3. Instructor Recommendations for Using Blogs in the Online Classroom.

- Facilitate a face-to-face meeting or web-conference at the beginning of the class to demonstrate how to create a “blogspot.”
- A review of netiquette (proper online etiquette) is essential.
- The instructor must act as a facilitator and establish clear communication and confidentiality guidelines in order to create a “safe” blogging environment.
- The instructor should be active in reading student blogs and monitoring student interaction.
- Students can guard their privacy by making their blogs only available to classmates and to their instructor.
- Students should refrain from posting personal identifying information on the Internet such as full name, email address, MySpace or Facebook information, home address, phone number, etc.
- Blog topics should allow for self-expression but remain relative to course content.
- Blogs should be used in conjunction with formal assignments—not to replace them.
- For students resistant to Constructivist learning, blogging may be a challenge.
- Some students may not feel comfortable “sharing”; therefore, provide more than one blog topic or consider blog topics that are more objective in nature.
- Blogging may not be a good fit for courses that are already writing intensive.
- Ask, “How will blogging help my students achieve the course objectives?”
Respond to ONE of the following in your blog entry this week:

- In your opinion, should prenatal testing be routine for all pregnant women? Please be very specific and provide support for your answer.

- Interview a woman who has chosen an alternative to hospital birth. Some examples may include home birth; underwater birth, or birthing center. Ask her why she chose that method and to describe the overall experience. How does she perceive that this experience was different than the hospital birthing experience?

- Choose an article relating to this issue (either in Supplemental Readings or from your own search using the University databases) and reflect on this article in your blog.

- View any of the video clips posted in the Supplemental Readings area and reflect on these clips in your blog.